

## CLAIMS

What is claimed is:

1. A tire having an outer tread and an inner casing with a belt structure, the belt structure includes an overlay reinforced by parallel cords oriented circumferentially having a width  $W$  between lateral outermost edges, the overlay having a pattern of cuts within discrete segments, each segment being wrapped around the circumference of the tire and a width  $W$  between lateral edges of the respective segment and joined to adjacent segments at the lateral edges, each segment being characterized by:  
a repeated pattern of cuts arranged in six rows each cut being spaced at least 100 mm from a cut in an adjacent row and being laterally offset from an adjacent segment by at least 3 mm, this distance being smaller than the cut width to ensure that each overlay cord is cut, the overlay cord lengths within the respective rows being of any length  $L$  in the range 200 to 500 mm, the cut pitch within the respective rows being of any percentage  $P$  of the tire circumference in the range 8 to 30%, the circumferential offset between two adjacent segments being of any percentage  $O$  of the tire circumference in the range of 0.5 to 2%.
2. The tire of claim 1 wherein the cut pattern has the cut pattern arranged in the six rows of 0, 53, 21, 89, 34 and 72 percent respectively of the cut pitch  $P$  of the cord relative to row  $R_1$  and repeated within each row with the cut length  $L$ .
3. The tire of claim 1 wherein the cut pitch percentage  $P$  is 20.9%.
4. The tire of claim 3 wherein the overlay cord length  $L$  is defined by  $L = P * M$  where  $M$  is the tire perimeter measured at the tire centerline in millimeter.
- 5A. The tire of claim 1 wherein the circumferential offset  $O$  between two adjacent segments, expressed in percentage of  $M$ , is 1.16%.

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